

(12) **INTERNATIONAL APPLICATION PUBLISHED UNDER
THE PATENT COOPERATION TREATY (PCT)**

(19) World Intellectual Property Organization
International Bureau

[WIPO]

[Bar Code]

(43) International Publication Date
August 18, 2005 (08/18/2005)

PCT

(10) International Publication Number
WO 2005/075055 A1

(51) International Patent Classification⁷: **B01D 46/50**
35/14, 29/21, 29/15, F02M 37/22, B01D 27/06

(21) International Application No.: PCT/EP2004/010824

(22) International Filing Date:
September 28, 2004 (09/15/2004)

(25) Language in which the international application was
originally filed: German

(26) Language in which the international application is
published: German

(30) Priority Data:
10 2004 005 202.6 February 3, 2004 (02/03/2004) DE

(71) Applicant (for all designated states except the U.S.):
HYDAC FILTERTECHNIK GMBH [DE/DE];
Industriegebiet, 66280 Sulzbach/Saar (DE).

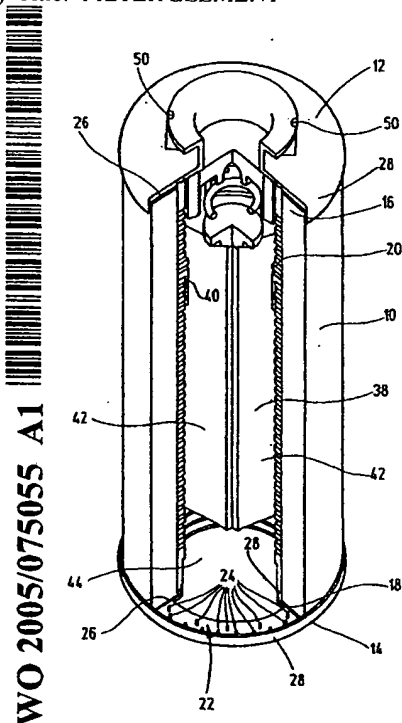
(72) Inventor; and
(75) Inventor/Applicant (U.S. only): **KOCH, Edwin**
[DE/DE]; Kirchberg 3, 66646 Marpingen (DE).
SCHWENDER, MATTHIAS [DE/DE]; Starenweg
10, 66459 Kirkel (DE). **LANGE, Sören** [DE/DE];
Hardtwaldstrasse 6, 68775 Ketsch (DE).

(74) Representative: **BARTELS AND PARTNER,**
PATENT ATTORNEYS; Lange Strasse 51, 70174
Stuttgart (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL,
AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

[continued on next page]

(54) Title: **FILTER ELEMENT**



(57) Abstract: The invention relates to a filter element comprising a filter medium (10) extending between two end caps (12, 14) that are respectively connected to an associate end region (16, 18) of the filter medium (10), supported at least on one side on a supporting tube (20). The fact that at least one of the end caps (14) and/or at least one end region (16, 18) of the filter medium (10) comprises a contacting device (22) and/or the respective end cap (14) itself or parts thereof are embodied in such a way as to derive the electrostatic charges especially occurring during the operation of the filter element, ensures that the charge generated on the filter medium (Meshpack) by tribo-electrical effects can escape towards a mass point or a mass site via the contacting device (22) or the respective end cap (14).

(57) Zusammenfassung: Die Erfindung betrifft ein Filterelement mit einem Filtermedium (10), das sich zwischen zwei Endkappen (12, 14) erstreckt, die jeweils mit einem zuordenbaren Endbereich (16, 18) des Filtermediums (10) verbunden sind, das sich zumindest an einem Ende an einem Stützrohr (20) abstützt. Dadurch, dass mindestens eine der Endkappen (14) und/oder zumindest ein Endbereich (16, 18) des Filtermediums (10) eine Kontaktierungseinrichtung (22) aufweist und/oder die jeweilige Endkappe (14) selbst oder Teile von ihr ableitend ausgebildet sind, zwecks Ableiten der, insbesondere im Betrieb des Filterelements auftretenden, elektrostatischen Aufladungen, ist sichergestellt, dass die durch tribo-elektrische Effekte am Filtermedium (Meshpack) generierte Ladung über die Kontaktierungseinrichtung (22) oder die jeweilige Endkappe (14) an einen Massepunkt oder Massestelle abfließen kann.

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*):
ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL,
SZ, TY, UG, ZM, ZW), Eurasian (AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM), European Patent (AT,
BE, GB, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

Published:

— *With International Search Report.*

Reference is made for an explanation of the two-letter codes and the other abbreviations to the Guidance Notes on Codes and Abbreviations in the front section of each regular PCT Gazette edition.